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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,003

09/29/2003

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7590

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EXAMINER

AJIBADE AKONAI, OLUMIDE

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/674,003	Applicant(s) NAKAMURA ET AL.	
	Examiner OLUMIDE T. AJIBADE AKONAI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :8/01/2005,06/10/05,12/21/04,9/29/03,8/31/05,5/11/06,12/14/07,3/07/08,11/05/08,11/19/08.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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2. Claims 10-16, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hakkinen 5,839,056** in view of **Keskitalo et al 5,839,056 (hereinafter Keskitalo)**.

Regarding **claims 10 and 19**, Hakkinen discloses a communication system comprising a first and second communication apparatus (base station 1 and mobile station MS1, see fig. 2, col. 4, lines 60-65), the first and second apparatus capable of performing a power control method in the communication system, wherein the first communication apparatus (mobile station MS1, see fig. 2, col. 4, lines 60-65) comprises: reception means (13, see fig. 2, col. 5, lines 48-62, col. 6, lines 1-11) for performing the step of receiving transmission power control information which is based on SIR measurement results in the second communication apparatus from the second communication apparatus (see fig. 2, col. 4, lines 60-67, col. 5, 1-23, and lines 41-62, col. 6, lines 1-11); a first control means for performing the step of carrying out transmission power control in accordance with a predetermined control pattern (see fig. 2, col. 5, lines 41-62, col. 6, lines 1-16), and the second communication apparatus (base station 1, see fig. 2, col. 4, lines 60-65) comprises: transmission means (antenna 12, see fig. 2, col. 5, lines 41-62) for performing the step of transmitting the transmission power control information (CNT, see col. 5, lines 54-59) which is based on SIR measurement results in the second communication apparatus to the first communication apparatus (see fig. 2, col. 4, lines 60-67, col. 5, 1-23, and lines 41-62, col. 6, lines 1-11).

Hakkinen does not specifically disclose first control means for carrying out transmission power control in accordance with a predetermined control pattern before

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the first communication apparatus becomes able to receive the transmission power control information; and second control means for carrying out transmission power control in accordance with the transmission power control information after the first communication apparatus becomes able to receive the transmission power control information.

In the same field of endeavor, Keskitalo discloses a mobile station having a control means for performing the step of carrying out transmission power control in accordance with a predetermined control pattern before the first communication apparatus receives transmission power control information (mobile station with capability to perform open loop power control without receiving power control messages from the base station, see col. 1, lines 59-67); and a control means for performing the step of carrying out transmission power control in accordance with the transmission power control information after the first communication apparatus becomes able to receive the transmission power control information (mobile station with capability to perform closed loop power control by receiving power control messages from the base station, see col. 1, lines 59-67).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Keskitalo, by having a having a mobile station capable of performing both open and closed loop power control based on a signal measurement, into the system of Hakkinen for the benefit of ensuring effective operation of a CDMA system by incorporating power control that will reduce interference.

Regarding **claims 11 and 20**, Hakkinen discloses a communication system comprising an apparatus capable of performing a power control method in the communication system, the apparatus (mobile station MS1, see fig. 2, col. 4, lines 60-65) comprising: reception means (13, see fig. 2, col. 5, lines 48-62, col. 6, lines 1-11) for performing the step of receiving transmission power control information (CNT, see col. 5, lines 54-59) which is based on SIR measurement results in another communication apparatus (see fig. 2, col. 4, lines 60-67, col. 5, 1-23, and lines 41-62, col. 6, lines 1-11); a first control means for performing the step of carrying out transmission power control in accordance with a predetermined control pattern (see fig. 2, col. 5, lines 41-62, col. 6, lines 1-16)

Hakkinen does not specifically disclose a first control means for performing the step of carrying out transmission power control in accordance with a predetermined control pattern before the first communication apparatus becomes able to receive the transmission power control information; and second control means for performing the step of carrying out transmission power control in accordance with the transmission power control information after the first communication apparatus becomes able to receive the transmission power control information.

In the same field of endeavor, Keskitalo discloses a mobile station having a control means for performing the step of carrying out transmission power control in accordance with a predetermined control pattern before the first communication apparatus receives transmission power control information (mobile station with capability to perform open loop power control without receiving power control messages

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from the base station, see col. 1, lines 59-67); and a control means for performing the step of carrying out transmission power control in accordance with the transmission power control information after the first communication apparatus becomes able to receive the transmission power control information (mobile station with capability to perform closed loop power control by receiving power control messages from the base station, see col. 1, lines 59-67).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Keskitalo, by having a having a mobile station capable of performing both open and closed loop power control based on a signal measurement, into the system of Hakkinen for the benefit of ensuring effective operation of a CDMA system by incorporating power control that will reduce interference.

Regarding **claim 12** as applied to claim 11, Hakkinen further discloses wherein the predetermined control pattern is a pattern for increasing the transmission power step by step (increasing the power based on a power-up message applied based on determination of factor CV to be less than 1 ($CV < 1$), see col. 5, lines 41-59).

Regarding **claim 13** as applied to claim 12, Hakkinen further discloses wherein the predetermined pattern is a pattern for increasing the transmission power to a predetermined value, and subsequently, less rapidly increasing the transmission power (increasing the power based on a power-up message applied based on determination of factor CV to be less than 1 ($CV < 1$), see col. 5, lines 41-59).

Regarding **claims 14, 16, 21, and 23**, Hakkinen discloses a communication system comprising a first communication apparatus and a second communication apparatus for performing a power control method (base station 1 and mobile station MS1, see fig. 2, col. 4, lines 60-65), wherein the first communication apparatus (mobile station MS1, see fig. 2, col. 4, lines 60-65) comprises: first transmission means (antenna 34, see col. 6, lines 40-43) for performing the step of transmitting transmission power control information (message CNT, see col. 7, lines 12-25) which is based on SIR measurement results in the first communication apparatus to the second communication apparatus (see col. 6, lines 49-67, col. 7, lines 1-25); and the second communication apparatus (BTS see fig. 3, col. 6, lines 17-20) comprises: first reception means for performing the step of receiving the transmission power control information which is based on SIR measurement results in the first communication apparatus from the first communication apparatus (antenna 42 receiving message CNT, see fig. 3, col. 6, lines 49-67, col. 7, lines 1-25); control means for performing the step of carrying out transmission power control in accordance with the transmission power control information after the second communication apparatus becomes able to receive the transmission power control information (antenna 42 receiving message CNT and BTS1 carrying out power control based on the CNT message, see fig. 3, col. 6, lines 49-67, col. 7, lines 1-25).

Hakkinen does not specifically disclose the first communication apparatus comprising a second transmission means for transmitting information regarding an initial value of transmission power of the second communication apparatus to the second

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communication apparatus; the second communication apparatus second reception means for receiving the information regarding the initial value of the transmission power from the first communication apparatus, and the control means sets an initial value of transmission power in accordance with the information regarding the initial value of the transmission power and carries out the transmission power control.

In the same field of endeavor, Keskitalo discloses a mobile station comprising a second transmission means for performing the step of transmitting information regarding an initial value of transmission power of the second communication apparatus to the second communication apparatus (mobile transmitting signal strength to the base station so that the base can measure the signal strength, see col. 2, lines 1-3); the second communication apparatus second reception means performs the step of receiving the information regarding the initial value of the transmission power from the first communication apparatus (mobile transmitting signal strength to the base station so that the base can measure the signal strength, see col. 2, lines 1-3), and the control means performs the steps of setting an initial value of transmission power in accordance with the information regarding the initial value of the transmission power and carries out the transmission power control (base station performing closed loop power control, see col. 1, lines 59-67).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Keskitalo, by having a having a mobile station capable of performing both open and closed loop power control based on a signal measurement, into the system of Hakkinen for the benefit of ensuring

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effective operation of a CDMA system by incorporating power control that will reduce interference.

Regarding **claims 15 and 22**, as applied to claims 14 and 21, Hakkinen as modified by Keskitalo discloses the claimed limitation except wherein the first transmission means transmits a predetermined pattern as transmission power control information for controlling the transmission power of the second communication apparatus instead of the transmission power control information based on SIR measurement results before said communication apparatus becomes able to synchronize with a signal from said another communication apparatus. In an analogous art, Jensen discloses wherein the first transmission means transmits a predetermined pattern as the transmission power control information before said communication apparatus becomes able to synchronize with a signal from said another communication apparatus (transmission of power control pulse to adjust power output at user station and synchronize a user mobile station with a base station broadly reading on the recited limitation, see col. 10, lines 59-67, col. 20, lines 26-32). It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the teaching of Jensen into the system of Hakkinen as modified by Keskitalo for the benefit of synchronizing the base station with the user station.

3. Claims 17, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hakkinen 5,839,056** in view of **Keskitalo et al 5,839,056 (hereinafter Keskitalo)** and **Jensen et al 5,671,219 (hereinafter Jensen)**.

Regarding **claims 17 and 24**, Hakkinen discloses a communication system comprising a first communication apparatus (mobile station MS1, see fig. 2, col. 4, lines 60-65) capable of performing a power control method, the first communication apparatus comprising: first transmission means (antenna 34, see col. 6, lines 40-43) for transmitting transmission power control information (message CNT, see col. 7, lines 12-25) which is based on SIR measurement results in the communication apparatus to another communication apparatus (see fig. 3, col. 6, lines 49-67, col. 7, lines 1-25).

Hakkinen does not specifically disclose a second transmission means for transmitting information regarding an initial value of transmission power of the another communication apparatus to said another communication apparatus.

In the same field of endeavor, Keskitalo discloses a mobile station comprising a second transmission means for performing the step of transmitting information regarding an initial value of transmission power of the second communication apparatus to the second communication apparatus (mobile transmitting signal strength to the base station so that the base can measure the signal strength, see col. 2, lines 1-3).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Keskitalo, by having a having a mobile station capable of performing both open and closed loop power control based on a signal measurement, into the system of Hakkinen for the benefit of ensuring effective operation of a CDMA system by incorporating power.

Hakkinen as modified by Keskitalo does not specifically disclose wherein the first transmission means transmits a predetermined pattern as transmission power control information for controlling the transmission power of the another communication apparatus instead of the transmission power control information based on SIR measurement results before said communication apparatus becomes able to synchronize with a signal from said another communication apparatus.

In an analogous art, Jensen discloses wherein first communication device (mobile station, see col. 20, lines 26-32) comprising a transmission means performing the step of transmitting a predetermined pattern as transmission power control information for controlling the transmission power of another communication apparatus (base station, see col. 20, lines 26-32) instead of transmission power control information based on SIR measurement results before said communication apparatus becomes able to synchronize with a signal from said another communication apparatus (transmission of power control pulse to adjust power output at user station and synchronize a user mobile station with a base station broadly reading on the recited limitation, see col. 10, lines 59-67, col. 20, lines 26-32). It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the teaching of Jensen into the system of Hakkinen as modified by Keskitalo for the benefit of synchronizing the base station with the user station.

Regarding **claim 18**, as applied to claim 17, Hakkinen further discloses a means for varying the predetermined pattern (see fig. 3, col. 6, lines 49-67, col. 7, lines 1-25).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Weiland et al 5,590,408 discloses a reverse link transmit power correction and limitation in a radiotelephone system.

Kakizawa 6,094,563 discloses a communication apparatus.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617